

Remarks

In view of the above amendments and the following remarks, reconsideration of the rejections and further examination are requested.

Claims 1, 3, 5, 13, 14 and 16-18 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Sequeira (US 6,222,530) in view of Schnell (US 6,199,133).

The above-mentioned rejection is respectfully traversed for the following reasons.

Claim 1 is patentable over the combination of Sequeira and Schnell, since claim 1 recites a device, having a master function for managing at least one slave device, for use in a network system in which a master device manages the at least one slave device, and the master device is allowed to shift a managing function thereof to one of the at least one slave device, the device including, in part, an own device information managing section operable to manage own device information of the device, which includes at least predetermined information, regarding a state change of the device; an other device information managing section operable to manage other device information regarding at least one other device connected to the network system, the other device information including at least availability of the master function; and a switch controlling section operable to compare predetermined information regarding a state change of the specified slave device with the predetermined information regarding the state change of the device included in the own device information, and operable, when the state change of the specified slave device is smaller than the state change of the device, to switch between a master operation operated by the device and a slave operation operated by the specified slave device.

The present invention as recited in claim 1 is capable of shifting, in a network system including a plurality of devices, a master operation which increases load (e.g., CPU load and/or power consumption) among the plurality of devices such that one of the plurality of devices, which is most appropriate to accept the load, performs the master operation. The combination of Sequeira and Schnell fails to disclose or suggest the own device information managing section, the other device information managing section, and the switch controlling section of claim 1 which aid in the realization of this effect.

Sequeira discloses a broadcast system including a distributed broadcast scheduler architecture where devices, such as media servers and tape drives, can operate independently of a scheduler due to the use of a master scheduler 120 and a slave task scheduler 140, thereby ensuring that a failure of the master scheduler 120 does not bring down the entire system. More

specifically, the system includes a service specific graphical user interface (GUI) 110 residing on one computer and the master scheduler 120 residing on a second computer.

A service/master scheduler API 170 includes two parts, a service/master scheduler API 170a which is a part of the service specific GUI 110 and a service/master scheduler API 170b which is part of the master scheduler 120. The master scheduler 120 communicates with a media server 130 which includes the slave task scheduler 140. A master/slave scheduler API 180 includes two parts, a master/slave scheduler API 180a which is a part of the master scheduler 120 and a master/slave scheduler API 180b which is a part of the slave task scheduler 140. Based on this configuration, the master scheduler 120 is capable of monitoring the slave task scheduler 140 so as to allow the master scheduler 120 to institute a recovery procedure should the slave task scheduler 140 stop operating properly. (See column 3, line 62 - column 4, line 56; column 9, line 66 - column 10, line 12; Table 2; and Figure 1).

Based on the above discussion, it is apparent that Sequeira discloses a system whereby multiple schedulers (i.e., the master scheduler 120 and the slave task scheduler 140) are used to increase the robustness of the system, and that the master scheduler 120 manages the slave task scheduler 140. However, there is no disclosure or suggestion in Sequeira that the master scheduler 120 and the slave task scheduler 140 can be interchanged.

In the rejection, Sequeira is relied upon as disclosing the claimed own device information managing section at column 2, line 57 and in Figure 1. However, the description at column 2, line 57 indicates that a failure of the master scheduler 120 does not bring down the entire broadcast system. This section of Sequeira does not provide any discussion of the master scheduler 120 managing its state change. Therefore, it is apparent that neither this section of Sequeira, nor any other section of Sequeira, discloses or suggests that the master scheduler 120 manages its own device information, which includes at least predetermined information, regarding a state change of the master scheduler 120. As a result, Sequeira fails to disclose or suggest the own device information managing section recited in claim 1.

Also in the rejection, Sequeira is relied upon as disclosing the claimed other device information managing section at column 2, line 18 and in Figure 5. However, the description at column 2, line 18 indicates that a scheduler (i.e., a master device) controls bit pumps or analog devices (i.e., slave devices) that cannot operate independently (i.e., do not have a master function). Neither this section of Sequeira, nor any other section of Sequeira, provides any

discussion of the scheduler managing other device information regarding at least one of the bit pumps or analog devices, the other device information including at least availability of a master function of the at least one of the bit pumps or analog devices, since this section of Sequeira specifically states that the bit pumps and the analog devices do not have a master function. Therefore, Sequeira fails to disclose or suggest the other device information managing section as recited in claim 1.

Further, as admitted in the rejection, Sequeira fails to disclose or suggest the switch controlling section as recited in claim 1. As a result, Schnell must disclose or suggest these features in order for the combination of Sequeira and Schnell to render claim 1 obvious.

Regarding Schnell, it discloses a network 100 including one or more network devices 104 each having a bus interface device 106 for connecting to a management communication bus 102. Each of the bus interface devices 106 can be implemented as a bus master device, a bus slave device, or both. Further, Schnell discloses an arbitration process to determine which of a plurality of bus master devices gains control of the bus 102 based on their ID numbers (i.e., MRQs) if a conflict between the devices arises. (See column 4, line 65 – column 5, line 17; column 10, line 49 – column 11, line 58; and Figure 1).

In the rejection, Schnell is relied upon as disclosing the claimed switch controlling section at column 11, line 38. However, as discussed above, the description at column 11, line 38 indicates that the bus master IDs (MRQs) of the bus master devices are compared with each other for conflict resolution in the arbitration process. This section of Schnell does not provide any discussion of comparing state change information of a bus slave device with state change information of a bus master device. Therefore, it is apparent that neither this section of Schnell, nor any other section of Schnell, discloses or suggests comparing predetermined information regarding a state change of a specified slave device with predetermined information regarding a state change of a device included in own device information, and, when the state change of the specified slave device is smaller than the state change of the device, switching between a master operation operated by the device and a slave operation operated by the specified slave device.

Further, Schnell also fails to disclose or suggest the own device information managing section and the other device information managing section as recited in claim 1. Therefore, it is apparent that Schnell fails to address the deficiencies of Sequeira. As a result, claim 1 is patentable over the combination of Sequeira and Schnell.

As for claims 14-16, they are patentable over the combination of Sequeira and Schnell for reasons similar to those set forth above in support of claim 1. That is, claims 14-16 recite similar limitations to those discussed above with regard to claim 1 that are lacking from the combination of Sequeira and Schnell.

Claim 4 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Sequeira in view of Schnell and further in view of Hart (US 6,005,759). Regarding this rejection, it is noted that Hart is relied upon as disclosing a system for monitoring and controlling an electrical distribution network. However, it is clear that Hart also fails to disclose or suggest the above-discussed features recited in claim 1 that are lacking from the combination of Sequeira and Schnell. Since claim 4 is dependent from claim 1, it is apparent that claim 4 is patentable over the combination of Sequeira, Schnell and Hart for at least the reasons set forth above in support of claim 1.

Because of the above-mentioned distinctions, it is believed clear that claims 1, 3-5 and 13-18 are patentable over the references relied upon in the rejections. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of invention would not have been motivated to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 1, 3-5 and 13-18. Therefore, it is submitted that claims 1, 3-5 and 13-18 are clearly allowable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. The Examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.

Respectfully submitted,

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